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EUROPEAN PATENT APPLICATION

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⑤⁴ **Finwheel servo drive for packaging machine.**

⑤⁷ A horizontal packaging machine for wrapping and sealing articles with flexible films comprises, a servo control system for maintaining synchronism between the finwheel drive (14), the in-feed conveyer (3) and the cut-off knife assembly (9) so that proper registration of the graphic art work on the packaged article is achieved. The finwheels (8, 15) are driven by a D.C. motor (13) whose armature windings are connected to the output of a servo amplifier (10). A master tachometer (20) driven by the horizontal wrapper's drive motor (see 6) provides a voltage which is directly proportional to the angular velocity of that drive motor. The output from the master tachometer (20) is passed through a calibrating network and into a first input (19) of the servo amplifier circuit (10). A second tachometer (16) is coupled to the finwheel shaft and produces a feedback signal proportional to the angular velocity of the finwheels (15). The feedback signal is applied to the second input (18) of the servo amplifier (10) and functions to control the D.C. current driving the finwheel drive motor (13). The system also includes a digital logic network (80, 81) which senses a reference mark (70a) on the film from which the package is formed along with the rate at which the end-seal cutting blade is rotating (see 87 to 89) to produce a supplemental or vernier control signal for adjustment of the rotational speed of the finwheel (15).

EP 0 109 819 A3



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EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 3)
A	EP - A2 - 0 018 041 (SITMA) * Totality * --	1,6	B 65 B 9/06 B 65 B 65/02
A	GB - A - 1 507 085 (BAKER PERKINS) * Totality * --	1	
X	EP - A1 - 0 044 677 (JONES & CO. INC.) * Totality * --	1-6	
A	US - A - 4 128 985 (SIMMONS) * Totality * --	1-6	
A	US - A - 3 583 128 (JOHNSON et al.) --		TECHNICAL FIELDS SEARCHED (Int. Cl. 3)
A	US - A - 4 326 152 (BLACKBURN et al.) ----		B 65 B 9/00 B 65 B 41/00 B 65 B 51/00 B 65 B 57/00 B 65 B 59/00 B 65 B 65/00 H 02 P 5/00
The present search report has been drawn up for all claims			
Place of search VIENNA		Date of completion of the search 09-08-1985	Examiner MELZER
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	